AMENDMENT TO THE CLAIMS:

1. (Previously Presented) Droplet deposition apparatus comprising:

an array of fluid chambers, each chamber communicating with an orifice for droplet ejection, a common fluid inlet manifold and a common fluid outlet manifold;

each chamber so connected with said inlet manifold and said outlet manifold as to enable a fluid flow from said inlet manifold, through each chamber in said array and into said outlet manifold, said fluid flow through each chamber being sufficient to prevent foreign bodies in the fluid from lodging in the orifice;

and each chamber being associated with a piezolelectric actuator for effecting droplet ejection from said orifice simultaneously with said fluid flow through the chamber,

wherein the flow through each chamber is at least ten times greater than the maximum fluid flow of droplets ejected through the orifice of the chamber , and the resistance to flow of said inlet and outlet manifolds is chosen such that a negative static pressure at the orifice of any chamber in the array due to the flow varies between any two chambers by an amount less than that which would give rise to significant differences in droplet ejection properties between said two chambers in the array.

2. (Original) Apparatus according to Claim 1, wherein the inlet manifold has a resistance to flow less than that which would give rise to a variation in static pressure between the inlets to any two chambers in the array sufficient to produce significant differences in droplet ejection properties between said two chambers in the array.

3. (Original) Apparatus according to Claim 1, wherein the resistance to flow of said outlet manifold is chosen such that the pressure at a fluid inlet to any chamber in the

array varies between any two chambers by an amount less than that which would give rise to significant differences in droplet ejection properties between said two chambers in the array.

4. (Currently amended) Droplet deposition apparatus comprising:

an array of fluid chambers, each chamber communicating with an orifice for droplet ejection, a common fluid inlet manifold and a common fluid outlet manifold;

a piezoelectric actuator associated with each chamber for establishing an acoustic wave in fluid within the chamber to effect droplet ejection and

each chamber so connected with said inlet manifold and said outlet manifold as to enable, simultaneously with the establishment of an acoustic wave within the chamber to effect droplet ejection from said orifice, a fluid flow from the inlet manifold, through each chamber in said array and into said outlet manifold, said fluid flow through each chamber being ~~simultaneous with droplet ejection from said orifice and being sufficiently~~ sufficiently greater than the maximum flow through the orifice to prevent foreign bodies in the fluid from lodging in the orifice;

the resistance to flow of one of said inlet and outlet manifolds being chosen such that the pressure at a fluid inlet to any chamber in the array varies between any two chambers by an amount less than that which would give rise to significant differences in droplet ejection properties between said two chambers in the array.

5. (Currently amended) Apparatus according to Claim 4, wherein the cross-sectional area of at least one of the inlet and outlet manifolds is such that said pressure varies between any two chambers at flow rates through each chamber of up to ten times the maximum flow through the associated orifice by an amount less than that which would give

rise to significant differences in droplet ejection properties between said two chambers in the array.

6. (Previously Presented) Apparatus according to Claim 4, wherein the array of chambers is linear.

7. (Previously Presented) Apparatus according to Claim 4, wherein said array is angled to the horizontal and said inlet manifold extends parallel to the array, the properties of said inlet manifold varying in a direction lying parallel to the array in such a way as to substantially match the rate of pressure loss along the inlet manifold due to viscous losses in the inlet manifold to the rate of increase of static pressure along the inlet manifold due to gravity.

8. - 34. (Canceled)

35. (Previously Presented) Apparatus according to Claim 1, wherein the cross-sectional area of at least one of the inlet and outlet manifolds is such that said pressure varies between any two chambers by an amount less than that which would give rise to significant differences in droplet ejection properties between said two chambers in the array.

36. (Previously Presented) Apparatus according to Claim 1, wherein the array of chambers is linear.

37. (Previously Presented) Apparatus according to Claim 1, wherein said array is angled to the horizontal and said inlet manifold extends parallel to the array, the

properties of said inlet manifold varying in a direction lying parallel to the array in such a way as to substantially match the rate of pressure loss along the inlet manifold due to viscous losses in the inlet manifold to the rate of increase of static pressure along the inlet manifold due to gravity.

38. - 64. (Canceled)

65. (Previously Presented) A method of droplet deposition utilising apparatus comprising an array of fluid chambers, each chamber communicating with an orifice to define a fluid meniscus in the orifice for droplet ejection, a common fluid inlet manifold and a common fluid outlet manifold, each chamber being associated with means for effecting droplet ejection from said orifice; the method comprising the step of generating a fluid flow into said inlet manifold, through each chamber in said array and into said outlet manifold and effecting droplet ejection from a selected chamber by activating a piezoelectric actuator associated with that chamber whereby:

the fluid flow into each chamber is at least ten times greater than the maximum fluid flow of droplets deposited through the orifice

a negative static pressure is maintained at each orifice when droplet ejection is not being effected; and

the resistance to fluid flow in the inlet and outlet manifolds is sufficiently small that the position of the meniscus in each orifice when droplet ejection is not being effected does not differ across the array.

66. - 67. (Canceled)